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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,772	04/18/2001	Dong Hun Jang	B-4139PCT 61	4633

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EXAMINER	
WILLS, MONIQUE M	

ART UNIT	PAPER NUMBER
1746	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/807,772	JANG ET AL.	
	Examiner	Art Unit	
	Monique M Wills	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 May 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This Office Actions is responsive to the Amendment filed May 11, 2004. The following rejection is been overcome:

- Claims 1-7 under 35 U.S.C. § 103 (a) over Carlson et al. U.S. Patent 6,306,545 in view of Bronstert et al., U.S. Patent 6,416,905 and further in view of Shackle U.S. Patent 5,573,872.
- Claim 1 under 35 U.S.C. §101 of the judicially created doctrine of double patenting over claim 1 of copending Application No. 09/868,227.

The following provisionally double patenting rejection is maintained.

- Claims 2 & 5 under the judicially created doctrine of double patenting over claims 2, 4,5 & 7 of copending Application No. 09/868,227.

The new ground rejections are as follows:

- Claim 1 is provisionally rejected under the judicially created doctrine of non-statutory double patenting over claim 1 of copending Application No. 09/868,227.
- Claims 1-3 & 5 under 35 U.S.C. 102(e) as being anticipated by Kuwahara et al. U.S. Patent 6,395,419.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is provisionally rejected under the judicially created doctrine of double patenting over claim 1 of copending Application No. 09/868,227. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: claim 1 of the instant application is shown in claim 1 of 09/807,772 the solid electrolyte comprises and absorbent in powder form in an amount of 30 to 95%, an ion conductive electrolyte present in an amount of 30 to 90% and said electrolyte having a thickness of 10-200 microns. As to the product-by-process limitations of instant claim 1, the claim produces the same product as the prior art and only differ from 09/807,772 by its method of production. In accordance with MPEP 2113, "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on

its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Therefore, since the process steps are not given patentable weight, the method limitations of claim 1 do not patentably distinguish the instant solid electrolyte from 09/807,772.

Claims 2 & 5 are provisionally rejected under the judicially created doctrine of double patenting over claims 2,4,5 & 7 of copending Application No. 09/868,227. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: claim 1 of the instant application is shown in claim 1 of 09/868,227 the solid electrolyte comprises and absorbent in powder form in an amount of 30 to 95%, an ion conductive electrolyte present in an amount of 30 to 90% and said electrolyte having a thickness of 10-200microns. Claims 1 & 2 of the instant application is shown in claims 1,2,4 & 5 of 09/868,227 wherein the solid electrolyte of the subject invention necessitated by claim 1 has an absorbent, polymer binder and ion electrolyte selected from the same Markush list of materials in application 09/868,227. Claim 5 of the instant application is shown in claim 7 of 09/868,227 wherein a rechargeable lithium cell is obtained by the steps of dissolving a mixture, making the resulting solution into a film, assembly the resulting electrolyte film and subjecting the resulting cell to absorb and electrolyte.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 & 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuwahara et al. U.S. Patent 6,395,419.

In re claims 1 & 5, Kuwahara teaches a solid polymer electrolyte for a lithium secondary cell comprising: an electrolyte film having a thickness less than 100 microns (col. 4, lines 5-10); an ion conductive liquid electrolyte in an amount of 60% by weight based on the total weight of the electrolyte including the liquid (col. 4, lines 55-68); and an inorganic absorbent filler (col. 3, lines 60-63) with a particle size less than 10 microns (col. 4, lines 5-10) in an amount of about 5% to about 70% by weight of the polymer (col. 3, lines 55 through column 4, lines 1-15). As to the process steps of claim 1, the claim is a product-by-process claim, which produces the same product as the prior art. The claims only differ from Kuwahara by their method of production. In accordance with MPEP 2113, "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777F.2d 695, 698, 227 USPQ 964,

966 (Fed. Cir. 1985). Therefore, since the process steps are not given patentable weight, the method limitations of claims 1 & 5 do not patentably distinguish the instant solid electrolyte (claim 1) and lithium battery (claim 5) from Kuwahara.

With respect to claim 2, the absorbent is silicon oxide or aluminum oxide (col. 3, lines 50-68); the polymer binder is a vinylidene fluoride-hexafluoropropylene copolymer (col. 3, lines 30-40); and the ion conductive liquid electrolyte contains electrolyte salts such as $LiPF_6$, $LiCLO_4$, $LiBF_4$, $LiASF_6$, $LiSO_3CF_3$ or $LiN(CF_3SO_2)_2$ dissolved in an organic solvent of ethylene carbonate, propylene carbonate, 1,3-dioxolan, g-butyrolactone, sulfolane or dimethoxyethane (column 4, lines 15-35).

With respect to claim 3, the absorbent is silicon oxide or aluminum oxide (col. 3, lines 50-68).

Therefore, the instant claims are anticipated by Kuwahara.

Response to Arguments

Applicant's arguments, see pages 5-7, filed May 11, 2004, with respect to the rejection(s) of claim(s) 1-7 under 35 U.S.C. § 103 (a) over Carlson et al. U.S. Patent 6,306,545 in view of Bronstert et al., U.S. Patent 6,416,905 and further in view of Shackle U.S. Patent 5,573,872 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kuwahara et al. U.S. Patent 6,395,419 for anticipating claims 1-3 & 5. Claims 4 & 6-7 have been cancelled.

Applicant's arguments, with respect to the rejection(s)of claim(s) 1 under 35 U.S.C. §101, of the judicially created doctrine of double patenting over claim 1 of copending Application No. 09/868,227 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of claim 1 under non-statutory double patenting over claim 1 of copending Application No. 09/868,227. Applicant has amended claim 1 to include the method limitations of claim 4. The amendment overcomes the 35 U.S.C. §101 statutory double patenting rejection because the claims are no longer identical. However, the new limitations are merely product-by-process limitations that are not given patentable weight. Therefore, although the amendment has overcome double patenting under 35 U.S.C. §101, the claims are now rejected under non-statutory double patenting because the scope of the resulting claims are the same.

Applicant's arguments with respect to the rejection of claims 2 & 5 under the judicially created doctrine of double patenting over claims 2, 4,5 & 7 of copending Application No. 09/868,227 have been fully considered but they are not persuasive. The subjection matter of claims 2,4,5 & 7 are broad enough to embrace the limitations of instant claims 2 & 5. Applicant asserts that '227 is silent to an absorbent in powder form. This argument is not persuasive. Claims 1 & 5 of '227 recite the same absorbent materials with the same particle sizes as those set forth in the subject invention. Therefore, it would be reasonable to expect the absorbent material to be in powder form.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Monique Wills whose telephone number is (571) 272-1309. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00 pm.

If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Michael Barr, may be reached at 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov.Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MW

07/23/04

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